

REMARKS

This Response is submitted in reply to the Office Action mailed on July 2, 2008. The Commissioner is hereby authorized to charge any fees which may be required or credit any overpayment to Deposit Account No. 02-1818. If such a withdrawal is made, please indicate the Attorney Docket No. 112701-597 on the account statement.

Claims 1-21 are pending in the application. Claims 9-16 and 18-21 are withdrawn from consideration. In the Office Action, Claim 6 is objected to for informalities; Claims 1-8 are rejected under 35 U.S.C. § 112; Claims 1-8 are rejected under 35 U.S.C. § 102(a), and Claims 1-8 are rejected to under 35 U.S.C. § 103(a). In response, Applicants have amended Claims 1, 2 and 6. The amendments do not add new matter and are supported in the specification at page 4, lines 8-11. In view of the amendments and at least for the reasons provided below, Applicants respectfully submit that the rejections should be withdrawn.

In the Office Action, Claim 6 is objected to. In response, Applicants have amended Claim 6 to add “the” after “of” in line 2. The “ingredient” of dependent Claim 6 has sufficient antecedent basis in independent Claim 1, where it recites a composition comprising an effective amount of an ingredient. Accordingly, Applicants respectfully request that the objection to Claim 6 be withdrawn.

In the Office Action, Claims 1-8 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the Office Action asserts that there is insufficient antecedent basis for “the cell” in Claim 1 and that the term “natural sources” of Claim 2 renders the claim indefinite. In response, Applicants have amended Claim 1 to recite “a cell” instead of “the cell” and amended Claim 2 to remove the term “natural resources” and, instead, recite a composition according to claim 1, wherein said molecule is selected from the group consisting of L-carnitine, creatine, fatty acids (monounsaturated and polyunsaturated), cardiolipin, nicotinamide and carbohydrate. Accordingly, Applicants respectfully request that the rejection to Claims 1-12 under 35 U.S.C. § 112, second paragraph, be withdrawn.

In the Office Action, Claims 1-8 are rejected under 35 U.S.C. § 102(a) as being anticipated by WO 02/11717 A1 to Hamilton (“*Hamilton*”). Independent Claim 1 recites a composition comprising an effective amount of an ingredient comprising an admixture of a

molecule that stimulates energy metabolism of a cell and an antioxidant in an amount sufficient to improve hair or coat quality of a human or an animal, in an orally acceptable carrier. Applicants respectfully submit that *Hamilton* fails to disclose or suggest every element of the present claims.

Hamilton fails to disclose or suggest a composition comprising an effective amount of an ingredient in an amount sufficient to improve hair or coat quality of a human or an animal, in an orally acceptable carrier as required, in part, by independent Claim 1. In fact, contrary to the assertions of the Office Action, *Hamilton* fails to disclose or suggest any composition in an orally acceptable carrier. Instead, *Hamilton* is directed to cosmetic and skin care compositions with carrier examples including creams, lotions and sunscreen. See, *Hamilton*, page 4, line 22 to page 5, line 15. Moreover, *Hamilton* states that its “inventive combination,” when applied “topically,” slows skin impairments and skin aging. See, *Hamilton*, line 5, lines 29-33. Though *Hamilton* teaches that certain individual components of the “inventive combination” could be used in diets, supplements and nutritional therapies, *Hamilton* never teaches or suggests a composition that is orally acceptable. Furthermore, every example taught in *Hamilton* teaches a composition for topical administration. See, *Hamilton*, page 15, line 10 to page 16, line 7.

Applicants have found that when the composition of Claim 1 is orally administered, the composition can contain carriers and excipients that are suitable for delivering the ingredient and associated molecule to the target tissue to allow the molecules to stimulate energy metabolism to improve hair and coat quality and condition as required by the claims. See, specification, page 4, lines 13-15 and page 6, lines 12-14. As a result, the composition causes an increase in non-polar and polar lipids, a modification in lipid balance between polar and non-polar lipids, as well as increase in total lipids in hair sebum. Moreover, sensory evaluation showed increase in coat shininess and gloss after oral administration of the composition of the present claims. See, specification, page 13, lines 10-25.

Therefore, *Hamilton* fails to disclose or suggest every element of Claims 1-8. Accordingly, Applicants respectfully request that the anticipation rejection of Claims 1-8 be withdrawn.

In the Office Action, Claims 1-8 are rejected under 35 U.S.C. § 103(a) as being unpatentable over WO 00/53176 to Borgonovo, et al. (“*Borgonovo*”). Applicants respectfully

submit that *Borgonovo* fails to disclose or suggest an ingredient comprising an admixture of a molecule that stimulates energy metabolism of a cell and an antioxidant in an amount sufficient to improve hair or coat quality of a human or an animal, as required, in part, by independent Claim 1. Though *Borgonovo* teaches the use of certain antioxidants such as, for example, lipoic acid, cysteine, cystine, vitamin E, flavonoids and ubiquinones, *Borgonovo* fails to teach the use of any of these with a molecule that stimulates energy metabolism of a cell to improve hair or coat quality of a human or an animal.

The Office Action asserts, however, that even though *Borgonovo* does not expressly teach the combination of carnitine (molecule that stimulates energy metabolism of a cell) with antioxidants, it would have been obvious to one of ordinary skill in the art at the time the invention was made to treat hair loss in humans by combining tioctic acid (lipoic acid) and cysteine, where cysteine may be in the form of cystine with carnitine, vitamin C, etc. Applicants respectfully disagree with this assertion because the Office Action misreads *Borgonovo*.

Borgonovo does not teach that cysteine may be in the form of cystine with carnitine. Instead, *Borgonovo* teaches that there is a surprising synergistic effect by the association of tioctic acid and cysteine, which are both antioxidants. See, *Borgonovo*, page 5, lines 33-35. *Borgonovo* discusses carnitine independent of the above antioxidants. In fact, every example in *Borgonovo* that teaches compositions related to skin and hair, such as dermatological pathologies, skin aging, and hair loss, fail to teach or even suggest a composition comprising both an antioxidant and a molecule that stimulates energy metabolism of a cell. Instead, these examples, at best, teach compositions with multiple antioxidants. See, *Borgonovo*, page 12, line 4 to page 13, line 5; page 15, line 5 to page 16, line 20; page 22, line 15 to page 24, line 15, and page 32, line 12 to 36, line 5.

Therefore, *Borgonovo* fails to disclose or suggest every element of the present claims. Applicants respectfully request, accordingly, that the obviousness rejection of Claims 1-8 be withdrawn.

For the foregoing reasons, Applicants respectfully request reconsideration of the above-identified patent application and earnestly solicit an early allowance of same.

Respectfully submitted,

BELL, BOYD & LLOYD LLP

BY 

Robert M. Barrett
Reg. No. 30,142
Customer No. 29157

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